**BACKGROUND**

RUFY1 (RUN and FYVE domain containing 1), also known as RABIP4 or ZFYVE12, is a 708 amino acid protein that localizes to the cytoplasm and the early endosome membrane. Highly expressed in testis, lung, brain and kidney, RUFY1 functions to bind phosphatidylinositol 3-phosphate-containing phospholipid vesicles and, via this interaction, participates in early endosomal trafficking. RUFY1 contains one RUN domain and one FYVE-type zinc finger through which it mediates its ability to bind phosphatidylinositol 3-phosphate. Upon DNA damage, RUFY1 may be phosphorylated by ATM or ATR. Additionally, the phosphorylation of Tyr 389 and/or Tyr 400 residues on human RUFY1 is thought to be necessary for endosomal localization. Three isoforms of RUFY1 exist due to alternative splicing events.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: RUFY1 (human) mapping to 5q35.3; Rufy1 (mouse) mapping to 11B1.3.

**SOURCE**

RUFY1 (A-4) is a mouse monoclonal antibody raised against amino acids 481-585 mapping within an internal region of RUFY1 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG kappa light chain in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

RUFY1 (A-4) is available conjugated to agarose (sc-398740 AC), 500 µg/ml agarose in 1 ml, for IP; to HRP (sc-398740 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398740 PE), fluorescein (sc-398740 FITC), Alexa Fluor® 488 (sc-398740 AF488), Alexa Fluor® 546 (sc-398740 AF546), Alexa Fluor® 594 (sc-398740 AF594) or Alexa Fluor® 647 (sc-398740 AF647), 200 µg/ml, for WB (RBG), IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398740 AF680) or Alexa Fluor® 790 (sc-398740 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA.

**APPLICATIONS**

RUFY1 (A-4) is recommended for detection of RUFY1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for RUFY1 siRNA (h): sc-91860, RUFY1 siRNA (m): sc-153172, RUFY1 shRNA Plasmid (h): sc-91860-SH, RUFY1 shRNA Plasmid (m): sc-153172-SH, RUFY1 shRNA (h) Lentiviral Particles: sc-91860-V and RUFY1 shRNA (m) Lentiviral Particles: sc-153172-V.

**CHROMOSOMAL LOCATION**

Molecular Weight of RUFY1: 80 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, HL-60 whole cell lysate: sc-2209 or MEG-01 cell lysate: sc-2283.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:

**DATA**

**STORAGE**

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**RESEARCH USE**

For research use only, not for use in diagnostic procedures.

**PROTOCOLS**

See our web site at www.scbt.com for detailed protocols and support products.